

AMENDMENTS TO THE CLAIMS

1. (Original) A method of monitoring a microseismic event, comprising: detecting said event to produce a first signal dependent on said event, the first signal including noise at a frequency of f Hz; taking a first sample of said first signal; taking a second sample of said first signal, the second sample occurring n/f seconds after the first sample, where n is an integer; and subtracting the first and second samples from each other to produce a further signal dependent on said event in which said noise has been at least partly compensated for.
2. (Original) A method according to claim 1, wherein $n = 1$.
3. (Original) A method according to claim 1, wherein $f = 50$.
4. (Original) A method according to claim 1, wherein the microseismic event is one occurring in a fluid producing well.
5. (New) A method according to claim 1, wherein a source of the noise signal is a cathodic protection direct-current (DC) derived from an alternating current main supply by rectification.
6. (New) A method of monitoring a microseismic event, the method comprising the steps of:
detecting a microseismic event to produce a first signal dependent on said event, the first signal including a noise signal produced by cathodic protection currents having a frequency of f Hz;
taking a first sample of said first signal;

taking a second sample of said first signal, the second sample taken n/f seconds after the first sample; and

determining a difference between the first and second samples to produce a third signal dependent on said microseismic event in which said noise signal has been at least partly removed.

7. (New) A method according to claim 6, wherein a source of the noise signal is a cathodic protection direct-current (DC) derived from an alternating current main supply by rectification.

8. (New) A method according to claim 7, wherein f is approximately 50 Hz.

9. (New) A method according to claim 8, where n is an integer, and wherein $n = 1$.

10. (New) A method of monitoring a microseismic event in a fluid producing well, comprising the steps of:

rectifying an AC main supply to produce DC current, the DC current containing a noise signal having a base frequency f Hz equivalent to the frequency of the AC main supply and harmonics thereof;

detecting a microseismic event to produce a first signal dependent on said event, the first signal including the noise signal;

taking a first sample of said first signal;

taking a second sample of said first signal, the second sample taken n/f seconds after the first sample;

determining a difference between the first and second samples to produce a third signal dependent on said microseismic event in which said noise signal has been at least partly removed; and

applying the third signal to an existing trigger detection algorithm to detect the microseismic event.